REMARKS

The Office Action dated October 31, 2006 has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claims 1-46 have been amended to more particularly point out and distinctly claim the subject matter of the invention. No new matter has been added. Claims -1-46 are submitted for consideration.

Claims 1-3, 6, 10, 16-18, 21, 25, 28, 32-34, 37 and 41 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Publication No. 20030195962 (Kikuchi) in view of U.S. Patent No. 6,826,198 to Turina. According to the Office Action, Kikuchi teaches all of the elements of claims 1-3, 6, 10, 16-18, 21, 25, 28, 32-34, 37 and 41 except for specifically disclosing a network wherein a plurality of network elements are radio network controllers, the request to be handled is a paging request from a core network element acting as a pool user, and the services to be provided is transmitting a paging message to a predetermined user equipment. Therefore, the Office Action combined Kikuchi and Turina to yield all of the elements of claims 1-3, 6, 10, 16-18, 21, 25, 28, 32-34, 37 and 41. The rejection is traversed as being based on references that neither teach nor suggest the novel combination of features clearly recited in claims 1-3, 6, 10, 16-18, 21, 25, 28, 32-34, 37 and 41.

Claim 1, upon which claims 2-15 depend, recites a method for choosing a network element of a mobile telecommunication network from a plurality of network elements in

order to provide a predetermined service. The method includes choosing a server, the server including the plurality of network elements of the mobile telecommunication network, all of which provide the same predetermined service and defining a pool handle, wherein a pool handle is a name which identifies the server. The method also includes providing a name server for handling any requests from a pool user to the identified server, wherein the name server identifies a request to the identified server by means of the pool handle, establishes a connection which each network element of the identified server and selects according to predetermined criteria, at least one network element amongst the plurality of network elements of the identified server, for providing the predetermined service requested by the pool user. The plurality of network elements are radio network controllers, the request to be handled is a paging request from a core network acting as the pool user, and the predetermined service to be provided is transmitting a paging message from the pool user to a predetermined user equipment directly through the selected at least one network element.

Claim 16, upon which claims 17-31 depend, recites a mobile telecommunication network that includes a server having a plurality of network elements of the mobile telecommunication network, all of which provide a same predetermined service. The network also includes a pool handle, wherein a pool handle is a name, which identifies the server. The network further includes a name server configured to handle requests from a pool user to the identified server, wherein the name server is configured to identify a request to the identified server by means of the pool handle, to establish a

connection with each network element of the identified server and to select according to predetermined criteria, at least one network element amongst the plurality of network elements of the identified server for providing the predetermined service requested by the pool user. The plurality of network elements are radio network controllers, the request to be handled is a paging request from a core network acting as the pool user, and the predetermined service to be provided is transmitting a paging message from the pool user to a predetermined user equipment directly through the selected at least one network element.

Claim 32, upon which claims 33-46 depend, recites a mobile telecommunication network allowing choice of a network element from a plurality of network elements in order to provide a predetermined service. The network includes choosing means for choosing a server, the server including the plurality of network elements of the mobile telecommunication network, all of which provide the same predetermined service and defining means for defining a pool handle, wherein a pool handle is a name which identifies the server. The network also includes name serving means for serving handling requests from a pool user to the identified server, wherein the name serving means identifies a request to the identified server by means of the pool handle, establishes a connection with each network element of the identified server and selects according to predetermined criteria, at least one network element amongst the plurality of network elements of the identified server for providing the predetermined service requested by the pool user. The plurality of network elements are radio network controllers, the request to

be handled is a paging request from a core network acting as the pool user, and the predetermined service to be provided is transmitting a paging message from the pool user to a predetermined user equipment directly through the selected at least one network element.

As outlined below, Applicant submits that the cited references of Kikuchi and Turina do not teach or suggest the elements of claims 1-3, 6, 10, 16-18, 21, 25, 28, 32-34, 37 and 41.

Kikuchi discloses a directory system that includes a switch, two directory servers and three clients. The switch includes a server pool definition file for defining a group of servers to which a load is to be distributed. An administrator describes the names of the plurality of servers to which load is to be distributed in the server pool definition file. When the switch is started, a connection managing unit of the switch establishes a LDAP connection which each server in the server pool, reads the server name described at the head of the server pool definition file, build up a Bind request of establishing LDAP connection with the server, and requests the server communication control unit to send the server. (Paragraphs 0026-0033.) When the client communication control unit receives a request from the client, a request distribution unit selects the most suitable server from the server pool and sends the request to the selected server.

Turina provides mobile switching apparatuses supporting a pool concept and having the capability of relaying a paging request issued by a mobile switching apparatus of the pool. See at least page 2, paragraph 0031.

Applicant submits that the combination of Kikuchi and Turina does not teach or suggest all of the elements of the pending claims. Independent claims 1, 16 and 32 each recites, in part, providing a name server for handling any requests from a pool user to the identified server, wherein the name server identifies a request to the identified server by means of the pool handle, establishes a connection which each network element of the identified server and selects according to predetermined criteria, at least one network element among the plurality of network elements of the identified server, for providing the predetermined service requested by the pool user.

Kikuchi relates to a load balancing device that distributes a request from a client to a selected server amongst a server pool using a switch as an interface. If one were to compare the teachings of Kikuchi with the presently pending claims, Kikuchi would be interpreted to disclose the steps of choosing a group of servers referred to as a server pool (server), defining a pool identifier 38 (pool handle), providing a connection management unit 8 (name server), which identifies a request to the identified server pool (server) by means of the pool identifier 38 (pool handle) and establishing a connection with each server 1a, 1b (pool element or network element) of the identified server pool (server). However, if the pooling mechanism of Kikuchi is centralized based on the recitation of the presently pending claims which enables the name server to both control and carry out the selection of the pool elements, then it becomes apparent that Kikuchi does not teach or suggest that the selecting step is to be performed by the connection management unit 8 (name server). Kikuchi merely discloses that the selecting step is to be performed by a

request distribution unit 5 that operates to select the most suitable server (pool element or network element) from the server pool (server) and to then send the request to the selected server 1 a or 1 b (pool element or network element). See at least page 2, paragraph 0039 of Kikuchi. The request distribution unit 5 of Kikuchi interfaces between a client communication control unit 4 that executes a communication with the clients 2a, 2b, 2c (pool user) and a server communication control unit 7 that executes a communication with the server 1a, 1b (pool element or network element). The request distributing unit 5 of Kikuchi additionally distributes the request received from the clients 2a, 2b, 2c (pool user) to the previously selected server 1a or 1b (pool element or network element), using information 11 stored in a processing status storage unit 6. See at least pages 2-3 and paragraphs 0027, 0030 and 0037-0045 of Kikuchi. Thus, the recitation of the presently pending claims, Kikuchi does not allow transmission of the request from the clients 2a, 2b, 2c (pool user) directly towards the selected server 1a or 1b (pool element or network element) while bypassing the switch 3.

Furthermore, as acknowledged in the Office Action, Kikuchi also differs from the present invention in that, in Kikuchi, the plurality of servers 1a, 1b (pool elements or network elements) are not radio network controllers, the request to be handled is not a paging request and the service to be provided is not transmitting a paging message from the clients 2a, 2b, 2c (pool user) towards a predetermined user equipment, as recited in the presently pending claims, but rather towards the selected server 1a or 1b. Consequently, the server load balancing method of Kikuchi, which is based on the use of

a switch interfacing between a client and a server, presents a configuration totally different from that of the present invention, and there is no suggestion in Kikuchi that the configuration could be changed to allow a request, received from the client, to be distributed to the selected server directly and not through an intermediate switch.

Turina does not cure any of the deficiencies of Kikuchi, as noted above. Turina discloses a pool of mobile switching apparatuses, acting as a transparent switching unit between a core network and an access network, and having the capability of relaying a paging request and paging response respectively issued and received by a selected mobile switching apparatus of the pool. See at least page 2, paragraph 0031 and page 5, paragraph 0078 of Turina. By comparing Turina with the presently pending claims, one would interpret Turina to disclose a network wherein, the access network acting as the plurality of network elements includes a plurality of radio network controllers, the request to be handled is a paging request from a core network element acting as a pool user, and the predetermined service to be provided is transmitting a paging message from the pool user to a predetermined user equipment indirectly through the access network. See at least page 1, paragraph 8 and the Abstract of Turina. Thus, unlike the present invention, Turina transmits the paging message in two steps, first from the pool user towards a pool of mobile switching apparatuses, and second from this pool of mobile switching apparatuses towards the access network. See at least Fig. 2, and page 6, paragraphs 0083-0087 of Turina. Therefore, Applicant respectfully asserts that the rejection under 35 U.S.C. §103(a) should be withdrawn because neither Kikuchi nor Turina, whether taken singly

or combined, teaches or suggests each feature of claims 1, 16 and 32 hence, dependent claims 2-3, 6, 10, 17-18, 21, 25, 28, 33-34, 37 and 41 thereon.

Claims 4, 19 and 35 were rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi in view of Turina and International Publication No. WO 20/071776 Artola (hereinafter Artola). According to the Office Action, although Kikuchi and Turina teach all of the elements of claims 4, 19 and 35, they do not teach a method and network wherein the name server accesses a location area or a routing area, which indicate the are in which the user equipment is currently located and selects a radio controller which is close enough to the user equipment for transmitting a paging message to predetermined user equipment. Thus, the Office Action combined Kikuchi, Turina and Artola to yield all of the elements of claims 4, 19 and 35. The rejection is traversed as being based on references that neither teach nor suggest the novel combination of features clearly recited in independent claims 1, 16 and 32, upon which claims 4, 19 and 35 depend.

Artola discloses that the server pool CNSP includes two network servers MSC1 and MSC2, both being of the same type as either MSC or SGSN. See at least page 18, lines 8-10 of Artola. Artola also does not cure the deficiencies of the combination of Kikuchi and Turina, as outlined above. Specifically, Artola does not teach or suggest providing a name server for handling any requests from a pool user to the identified server, wherein the name server identifies a request to the identified server by means of the pool handle, establishes a connection which each network element of the identified server and selects according to predetermined criteria, at least one network element

amongst the plurality of network elements of the identified server, for providing the predetermined service requested by the pool user, as recited in claims 1, 16 and 32, upon which claims 4, 19 and 35 depend. Therefore, Applicant respectfully asserts that the rejection under 35 U.S.C. §103(a) should be withdrawn because neither Kikuchi, Artola nor Turina, whether taken singly or combined, teaches or suggests each feature of claims 1, 16 and 32 hence, dependent claims 4, 19 and 35 thereon.

Claims 5, 7, 11-13, 20, 22, 26-27, 36, 38 and 42-44 were rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi in view of Turina and U. S. Patent No. 6,091,953 Ho (hereinafter Ho). According to the Office Action, Kikuchi and Turina teach all of the elements of claims 5, 7, 11-13, 20, 22, 26-27, 36, 38 and 42-44 except for a method and network wherein the name server checks whether the predetermined user equipment is assigned to a particular radio controller and selects the particular radio controller for paging. Thus, the Office Action combined Kikuchi, Turina and Ho to yield all of the elements of claim s 5, 7, 11-13, 20, 22, 26-27, 36, 38, and 42-44. The rejection is traversed as being based on references that neither teach nor suggest the novel combination of features clearly recited in independent claims 1, 16 and 32, upon which claims 5, 7, 11-13, 20, 22, 26-27, 36, 38, and 42-44 depend.

Ho discloses a wireless communication system which assigns each serviced mobile unit to a serving MSC to minimize mobility management overhead and to equalize load among a plurality of MSCs. In such assignment operations, the MSCs assign temporary identifiers from their own pool of such numbers, each identifying the

MSC. A message router intercepts signaling messages and extracts a temporary ID from which it determines the serving MSC and routes the intercepted signaling message to the determined serving MSC.

Applicant submits that the temporary ID of Ho identifies a specific serving MSC, but not a pool of servers which provide the same predetermined service as recited in the present application. Ho also does not cure the deficiencies of the combination of Kikuchi and Turina, as outlined above. Specifically, Ho does not teach or suggest providing a name server for handling any requests from a pool user to the identified server, wherein the name server identifies a request to the identified server by means of the pool handle, establishes a connection which each network element of the identified server and selects according to predetermined criteria, at least one network element amongst the plurality of network elements of the identified server, for providing the predetermined service requested by the pool user, as recited in claims 1, 16 and 32 upon which claims 5, 7, 11-13, 20, 22, 26-27, 36, 38, and 42-44 depend. Therefore, Applicant respectfully asserts that the rejection under 35 U.S.C. §103(a) should be withdrawn because neither Kikuchi, Ho nor Turina, whether taken singly or combined, teaches or suggests each feature of claims 1, 16 and 32 hence, dependent claims 5, 7, 11-13, 20, 22, 26-27, 36, 38, and 42-44 thereon.

Claims 8-9, 23-24 and 39-40 were rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi in view of Turina and U. S. Publication No. 10030076803

Chuah (hereinafter Chuah). According to the Office Action, Kikuchi and Turina teach all of the elements of claims 8-9, 23-24 and 39-40 except for a method and network wherein the name server creates a ranking list of the radio controllers capable of transmitting a paging message to the predetermined user equipment, wherein a first radio controller is in the list most favorable to perform paging and a last radio controller in the list is a least favorable to perform paging. Thus, the Office Action combined Kikuchi, Turina and Chuah to yield all of the elements of 8-9, 23-24 and 39-40. The rejection is traversed as being based on references that neither teach nor suggest the novel combination of features clearly recited in independent claims 1, 16 and 32, upon which claims 8-9, 23-24 and 39-40 depend.

Chuah relates to a network architecture between a group of Node Bs and a group of RNCs. In particular, this network architecture is called a reconfigurable network architecture due to the fact that a fixed association between a RNC and allocated Node Bs is not given. The underlying problem of Chuah resides in that the conventional server RNC (SRNC)/drift RNC (DRNC) concept results in large differential delays in soft handover cases, caused by a delay introduced by the extra hop between the SRNC and the DRNC. See page 2, paragraph 0010 of Chuah. The reconfigurable IP-based network architecture between the Node Bs and the RNCs enables direct connections between each of the Node Bs (base stations) and each of the RNCs during soft handover, which reduces the need for having additional DRNCs beyond the SRNC involved in communications with wireless terminals.

Chuah also does not cure the deficiencies of the combination of Kikuchi and Turina, as outlined above. Specifically, Chuah does not teach or suggest providing a name server for handling any requests from a pool user to the identified server, wherein the name server identifies a request to the identified server by means of the pool handle, establishes a connection which each network element of the identified server and selects according to predetermined criteria, at least one network element amongst the plurality of network elements of the identified server, for providing the predetermined service requested by the pool user, as recited in claims 1, 16 and 32 upon which 8-9, 23-24 and 39-40 depend.

Chuah relates to a different network level and a different situation as compared to the subject-matter of the present invention. Although in paragraph 0022 of Chuah, treatment of the RNCs as a pool is described, the location of the concerned wireless terminal and thus the addressed pool of the RNCs is always known, such that the proposed RNC assignment function merely receives a request for a RNC but not a pool handle which defines a particular server pool, as recited in the present claims. The RNC assignment function of Chuah does not require a name server functionality, but merely serves to select an optimum RNC in terms of delay and/or load reduction. Moreover, facing the aforementioned objective problem of selecting an unknown pool of RNC′s such as defined in the present invention, Chuah suggests a totally different solution, namely to maintain RNC lists at each particular Node B, such that the Node B can decide

how to route call setup requests for a wireless unit using schemes or the RNC assignment system. See paragraph 0022, first sentence of Chuah. Therefore, the Node B of Chuah knows the selectable RNCs which can be used for routing service requests. Therefore, no incentive is given to the skilled person to depart from this known solution of Turina and Kikuchi and to refer to the server pooling architecture described in Chuah, alone or in combination with Turina and Kikuchi, and to provide a pool handle and name server for identifying an unknown pool of RNCs, as recited in the presently pending claims. Therefore, Applicant respectfully asserts that the rejection under 35 U.S.C. §103(a) should be withdrawn because neither Kikuchi, Chuah nor Turina, whether taken singly or combined, teaches or suggests each feature of claims 1, 16 and 32 hence, dependent claims 8-9, 23-24 and 39-40 thereon.

Claims 14, 29 and 45 were rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi in view of Turina and U. S. Publication No. 20010030940 to Musikka (hereinafter Musikka). According to the Office Action, Kikuchi and Turina teach all of the elements of claims 14, 29 and 45 except for a method and network where network elements are a plurality of gateway servers of an IP based radio access network, wherein the IP based radio access network is one of radio access network gateways and circuit switched gateways, and the pool user is a radio access network access server. Thus, the Office Action combined Kikuchi, Turina and Musikka to yield all of the elements of 14, 29 and 45. The rejection is traversed as being based on references that neither teach nor

suggest the novel combination of features clearly recited in independent claims 1, 16 and 32, upon which claims 14, 29 and 45 depend.

Musikka also does not cure the deficiencies of the combination of Kikuchi and Turina, as outlined above. Specifically, Musikka does not teach or suggest providing a name server for handling any requests from a pool user to the identified server, wherein the name server identifies a request to the identified server by means of the pool handle, establishes a connection which each network element of the identified server and selects according to predetermined criteria, at least one network element amongst the plurality of network elements of the identified server, for providing the predetermined service requested by the pool user, as recited in claims 1, 16 and 32 upon which 14, 29 and 45 depend Therefore, Applicant respectfully asserts that the rejection under 35 U.S.C. §103(a) should be withdrawn because neither Kikuchi, Musikka nor Turina, whether taken singly or combined, teaches or suggests each feature of claims 1, 16 and 32 hence, dependent claims 14, 29 and 45 thereon.

Claims 15, 30-31 and 46 were rejected under 35 U.S.C. 103(a) as being unpatentable over Kikuchi in view of Artola. The Office Action indicated that Kikuchi fails to teach a method and network wherein the plurality of network elements are network servers serving GPRS support nodes or gateway GPRS support nodes. Thus, the Office Action combined Kikuchi and Artola to yield all of the elements of 15, 30-31 and 46. The rejection is traversed as being based on references that neither teach nor suggest

the novel combination of features clearly recited in independent claims 1, 16 and 32, upon which claims 15, 30-31 and 46 depend.

As noted above, Artola does not cure the deficiencies of the combination of Kikuchi, as outlined above. Specifically, Artola does not teach or suggest providing a name server for handling any requests from a pool user to the identified server, wherein the name server identifies a request to the identified server by means of the pool handle, establishes a connection which each network element of the identified server and selects according to predetermined criteria, at least one network element amongst the plurality of network elements of the identified server, for providing the predetermined service requested by the pool user, as recited in claims 1, 16 and 32 upon which 15, 30-31 and 46 depend. Therefore, Applicant respectfully asserts that the rejection under 35 U.S.C. §103(a) should be withdrawn because neither Kikuchi, nor Artola, whether taken singly or combined, teaches or suggests each feature of claims 1, 16 and 32 hence, dependent claims 15, 30-31 and 46 thereon.

As noted previously, claims 1-46 recite subject matter which is neither disclosed nor suggested in the prior art references cited in the Office Action. It is therefore respectfully requested that all of claims 1-46 be allowed and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by

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telephone, the applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

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